



11 Publication number:

0 581 296 A3

12

## **EUROPEAN PATENT APPLICATION**

- (1) Application number: 93112208.9
- (1) Int. Cl.5: H01B 1/12, H01M 6/18

- Date of filing: 30.07.93
- Priority: 30.07.92 JP 223252/92 28.08.92 JP 254209/92
- ② Date of publication of application: 02.02.94 Bulletin 94/05
- Designated Contracting States:
   DE FR GB IT
- Date of deferred publication of the search report:
  27.04.94 Bulletin 94/17
- Applicant: Dow Corning Toray Silicone Co., Ltd.
   3-16, Nihombashi-muromachi 2-chome Chuo-ku, Tokyo(JP)
- ② Inventor: Kobayashi, Akihiko, Main Office R&D., Dow Corning
  Toray Silicone Co., Ltd.,
  2-2, Chigusa Kalgan
  Ichihara-shi, Chiba Prefecture(JP)
  Inventor: Nakamura, Takanashi, Main Office R&D., Dow Corning
  Toray Silicone Co., Ltd.,
  2-2, Chigusa Kaigan
  Ichihara-shi, Chiba Prefecture(JP)
- Representative: Sternagel, Hans-Günther, Dr. et al Patentanwälte Dr. Michael Hann Dr. H.-G. Sternagel Sander Aue 30 D-51465 Berglsch Gladbach (DE)
- (S) Ionically conductive organosiloxane polymer compositions.
- The ionically conductive compositions of this invention comprise the ionic pair (-SO<sub>3</sub>)<sub>n</sub>M<sup>n+</sup> bonded either to a crosslinked polymer containing organosiloxane units or to a finely divided solid that is immobilized within said composition, where the sulfur atom of said ionic pair is bonded by means of a divalent hydrocarbon radical that optionally contains at least one ether (-O-) linkage, and where M is a metal from Group I or Group II of the periodic table of the elements and n represents the valence of M. If the polymer does not contain oxyalkylene units the composition contains a non-aqueous electrolyte.

## **EUROPEAN SEARCH REPORT**

Application Number EP 93 11 2208

DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document with indication, where appropriate,				
Category	Citation of document with ir of relevant pa		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CL5)
A	US-A-4 888 257 (S.C * the whole documen		1-9	H01B1/12 H01M6/18
A	EP-A-0 362 593 (TORAY SILICONE)  * page 4, line 30 - line 33; claims 1,2 *		1-9	
A,P	POLYMERS FOR ADVANCED TECHNOLOGIES vol. 4, no. 2/3 , 1993 , CHICHESTER, SUSSEX ,GB pages 80 - 84 J.NI & AL 'synthesis of a novel polysiloxane-based polymer electrolyte and its ionic conductivity' * the whole document *		1-9	
A	JOURNAL ELECTROCHEM.SOC. vol. 137, no. 1 , January 1990 , USA pages 29 34 Z.OGUMI & AL 'ionically conductive thin polymer films prepared by plasma polymerization' * the whole document *		1-9	TECHNICAL FIELDS SEARCHED (Int.Cl.5)
	DATABASE WPI Section Ch, Derwent Publications Ltd., London, GB; Class A85, AN 90-302911 & JP-A-2 215 836 (FUJI PHOTO) 28 March 1990 * abstract *		1,3	H01B H01M
	The present search report has	been drawn up for all claims	<u> </u>	,
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	28 February 1994	Dr	ouot, M-C
Y:pa do A:te	CATEGORY OF CITED DOCUME rticularly relevant if taken alone rticularly relevant if combined with an cument of the same category chnological background no-written disclosure	E : earlier patent do after the filing d	cument, but pulate in the application for other reason	blished on, or on 13